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# The Public Health Journal

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Canadian Public Health Association

Vol. XVIII

TORONTO, MARCH, 1927

No. 3

## SPECIAL ARTICLES

### MONTREAL ANTI-TUBERCULOSIS AND GENERAL HEALTH LEAGUE

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FREDERICK CHARLES HILL

### THE ANTISYPHILITIC PHARMACOPOEIA OF FRACASTORIUS

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Honourable JAMES H. KING, M.D., C.M., F.A.C.S., Minister of Health for Canada.



# The Public Health Journal

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## Montreal Anti-Tuberculosis and General Health League

Address of the Chairman, SIR ARTHUR W. CURRIE, G.C.M.G., K.C.B., LL.D.

**A**T our last annual meeting I took occasion, as your chairman, to bring to your attention the possibilities which await Montreal in the reduction of the incidence and mortality from the ever-increasing list of preventable diseases. I pointed out that at least two thousand deaths and twenty thousand cases of acute illness could be prevented each year.

In seeking the cause of Montreal's high death rate from preventable diseases, one naturally asks what are the steps which can be taken to prevent disease, what has been the experience elsewhere and what are we doing here. We learn that there are certain fundamental steps which may be taken by any community to prevent disease. We find that where these steps have been taken they have given uniformly satisfactory results, as evidenced by a lower death rate.

Some years ago Sir Arthur Newsholme wrote: "Infant Mortality is the most sensitive index we possess of social welfare and of sanitary administration, especially under urban conditions". This statement is equally true to-day, because infant mortality responds quickly to changes in the sanitary, social and economic conditions. Such being the case, our infant death rate is the best indicator of our progress or lack of progress, and I will refer to it for this purpose.

We find that the rate of our infant mortality has decreased during the past years. From this we judge that general health conditions have improved. This we would expect, because during these years our water supply has been safeguarded, and an ever-increasing amount of our milk supply has been made safe by inspection and pasteurization. The

(Delivered at the Annual Meeting of the League, held on March 15th, 1927.)

health department has grown and the voluntary health agencies have done good, if limited, pieces of work. If this progress had been at the same rate and on a par with what has occurred elsewhere, we would feel that things were going well. What we do find, however, is this—that while we have progressed, our rate of progress has been, as it were, a walk, whilst other communities were running. We notice with pleasure that in the year 1926, when compared with 1925, there was a decrease of 197 infant deaths, due to gastro-enteritis, and this, I think, was due, to a considerable extent, to the improvement in our milk supply. This decrease of approximately 20% is well worth while. Still, however, there were 817 infant deaths from gastro-enteritis in the year 1926, while in Toronto there were but 78.

Because it is a matter of human life, and because it has been clearly demonstrated that not only can human lives be saved, but that the maiming of others can be prevented (for conditions which kill some injure others), I feel that no one will question the fact that we should hasten our pace so as to, at least, bring us alongside other cities; indeed, could anything be more desirable than that we take the lead and become known as the healthiest city in North America?

Tuberculosis deaths remained practically unchanged. It will be some years before the benefit of the sanatorium beds and other work shows its results. We would like to see the proposed new sanatorium go ahead, and trust that when it does, there will be provision for the treatment of children as well as a preventorium in connection with it. I am satisfied that within the course of three or four years we will see the beginning of a real decline in tuberculosis in this city, particularly if there is a further development of the present activities directed against this disease. I will not take further time to discuss the situation, but will pass on to a consideration of what should be done.

Democracy is a basis of human relationship. It implies an ideal of equal opportunity. Equal opportunity can only be assured by providing the fundamental equipment of a sound mind in a sound body. The state is, I believe, definitely responsible for assisting towards this fundamental equipment for equal opportunity.

I am of the opinion that progress along these lines, that is, progress in providing sound minds in sound bodies, now awaits the time when our provincial and municipal governments shall make the necessary expenditures upon public health work. There is a limit to the extent to which it can even be reasonably expected that private health organizations will be provided with funds by generous citizens to carry on work which is definitely and unquestionably the responsibility, indeed, one of the first responsibilities of the state.

I have nothing but words of praise for what the state has done and

for the commendable efforts of public officials who seek to give service without sufficient funds or personnel. I congratulate the Provincial Government on the increased activity of its Bureau of Health, particularly on its county demonstration units. I congratulate the City Council of Montreal on having provided the Health Department with the necessary laws to secure for us safe milk and pure food. But—and there is a very large BUT—not nearly enough has been done, nor is being done. We do not expect an ideal situation, but we do expect to be on a health level with other large cities; we do expect that human life shall be safeguarded as thoroughly and efficiently in Montreal as in any city in the world.

There is nothing secret about health work. The prevention of disease is nothing more or less than the practical application of scientific knowledge, which we have at our disposal, to the end that preventable diseases may be prevented. To this end the Directors of the Health League make certain definite proposals as to responsibilities which they believe the state should be prepared immediately to assume.

To the Provincial Government, we make three proposals:

1. That biological products, that is, diphtheria anti-toxin, diphtheria toxoid, scarlet fever anti-toxin and other similar products be provided free for the citizens of this province, in a manner similar to what is now being done in most of the other provinces. Through the use of these products communicable diseases can be prevented and cured. One cannot imagine any sound argument against the proposal of making these life-saving substances freely available and easily procurable for every child and adult in this province.

2. That the Provincial Government pass a Provincial Town Planning Act under which the province would be divided into zones and the Provincial Bureau of Health be empowered to pass health by-laws suitable for the different zones.

The reason for this proposal is the necessity for securing proper housing conditions for our people. At the present time the health by-laws of the province are minimum standards. It is apparent that standards for a city like Montreal should be different from those of a small isolated town. To overcome the present difficulty it is necessary to zone the province and have health by-laws suitable for each zone. In addition, such zoning would permit of the control of areas adjacent to the cities and prevent the growth of slum areas on our borders—areas which will be part of the city in the course of time and which the city cannot now control.

3. Standardized support of health agencies. It has been accepted in this province under the Quebec Public Charities Act that when certain types of institutions are approved by the Government they are entitled

to a per capita per diem allowance. This rate of payment was based on the assumption that the Province, the City and private philanthropy should each contribute one-third of the cost.

At the present time special grants of money are paid out of the Quebec Public Charities Act to various health agencies working in the province. As the Health League has neither applied for nor received such a grant, we are free to discuss the matter. There is no question but that these grants are well-earned and that the organizations receiving them are worthy of recognition.

We ask that the Government regularize such grants. In the first place, this would mean that all organizations receiving grants should be approved by the government; secondly, that payments be made by both the Government and the City of what would be approximately, from each, one-third, of the budget of such organizations. Instead of basing these payments on a per capita per diem basis, as is done for institutions, some standard of payment would have to be evolved suitable for the type of work of the institution.

If the care of the public health is, as we believe it to be, a state responsibility, then the state must either carry on such work itself or subsidize those who do the work. The choice of method rests with the authorities, but where the actual work is left to a voluntary organization, willing to do the work, it is reasonable and right that the state supply a large share of the necessary money.

To the City of Montreal we make eight proposals. The general basis of these proposals is:

That the city increase its expenditure upon health work. In 1923 the expenditure was 42 cents per capita; in 1924, 41 cents per capita; in 1925, 40 cents per capita. In other words, there has been a decrease instead of an increase. These per capita expenditures are based on very conservative estimations of population and are, therefore, likely below the true figure. We ask that this amount be increased each year, for at least a period of five years, at the rate of five cents per capita per year, to permit of the following:

1. Appointment of the necessary staff to enforce the recently-enacted by-laws concerning milk and food. The Director of the Department has not had his staff increased by one man to enforce these by-laws which, of course, are only of value to the extent to which they are enforced.

2. Appointment of a City Bacteriologist to fill a position long vacant. The medical profession are united in voicing their demand for such an appointment. Health organizations and institutions insist upon the need. The Health Department ask for this appointment to assist them in their work.

3. Maintenance of staff. The work of the department is continually hampered by the fact that positions are left vacant for long periods of time. The nursing staff for the school work consists of 36 nurses. There have been 9 vacancies on this staff for a period of months. This is due to the Executive Committee delaying such appointments. It is obvious that this delay disorganizes the department and handicaps them in a manner for which there is neither excuse nor reason.

4. Increased nursing staff for the Medical Inspection of Schools service. There are, at the present time, when the staff is complete, 35 public health nurses, with one supervisor, for 125,000 children, or only one nurse for every 3,500 children. This number will have to be increased to 50 before this most important branch is brought to a point where it can be expected to give the service that is given in other cities. Provision must be made for the ever-increasing school population. The City has rightly assumed responsibility for the health supervision of school children. What we ask is that it be done efficiently and effectively.

5. Organization of a school dental service. At the present time one dentist visits the schools and talks to the children. Knowing, as we do, the close connection between physical fitness and dental health, it seems ridiculous that in this city we have not a proper dental service in our schools. Every child should be examined once a year by a school dentist, and there should be made available facilities for treatment.

6. To enforce the Housing By-Laws. The present by-laws are not entirely satisfactory to us, but their enforcement would greatly improve conditions. The staff required to do this should be appointed or else delay will continue. A great deal of good work has been done by the department in surveying the homes of the city, but the real value of the survey in being used to correct conditions naturally depends upon having sufficient staff to see that the necessary changes are made and, at the same time, to watch new buildings. An increased staff is also required to allow for better control of the sanitation of work places.

7. To advise the Provincial Government of their approval of a Provincial Town Planning Act.

8. To advise the Provincial Government of their approval of standardized payments to health agencies under the Quebec Public Charities Act.

To the School Boards of Montreal we make one proposal:

1. That special classes be provided for those children who are handicapped on account of their physical condition and so cannot carry on their work in the ordinary class-room without further impairment of their health. A start should be made in the provision of open-air schools, open window class-rooms, sight-saving classes, classes for the hard of hearing and those for the mentally-retarded. For the last-named there

is an immediate, urgent need, and the opportunity is taken of endorsing the work of those specially interested in Mental Hygiene in their efforts to secure educational facilities for the mentally-handicapped. To quote from the report of S. B. Sinclair, Ph.D., Inspector of Auxiliary Classes for Ontario: "Experience has demonstrated beyond doubt that, where practicable, not only the wisest but the most economical course is to place such children in a class by themselves with educational opportunities suited to their individual needs and with a teacher of natural aptitude who has made special preparation for the work. There are now in Ontario 161 auxiliary classes, conforming to regulation requirement."

In many countries provision is made for the education of the handicapped child. Should not handicapped children in Montreal receive similar benefits to those received by such children elsewhere?

I have submitted to you certain definite suggestions which, in the opinion of the Directors, should be placed before the Provincial and Municipal authorities. If this meeting approve of the programme, it is our intention to present it to the authorities and then, in order that it have public approval, to place it before those organizations and groups which are interested in public welfare, and seek their endorsement.

We have patiently studied the health situation of Montreal. There is no dodging the fact that, in a health sense, Montreal does not occupy her rightful place of leadership in the Dominion. We have done our best to encourage the municipal government to further health work. We see voluntary organizations doing more than their share. For these reasons, and knowing that human lives are at stake, we feel that it is our responsibility to make an insistent demand for the protection from disease and death which the proper expenditure of money by the province and municipality would guarantee to us.

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#### Report of Medical Director, Annual Meeting, 1927

J. A. BAUDOUIN, M.D., D.H.P.

**T**HIS report covers the work of the French Health Centre and various contributions given to different activities concerned with public health.

##### 1. *Report for 1926 of the French Health Centre:*

The census of the district taken in December last by the personnel of the Centre, together with the student nurses of the University of Montreal School of Public Health Nursing, has given the following figures:



St. Catherine Parish.....	8,622
Sacred-Heart Parish.....	10,333
Total.....	18,955

The following figures which cover the year 1926 will give a general idea of the different activities of the Centre:

Total number of Home Visits.....	21,951
Total number of cases .....	3,131
Ante-partum.....	297
Post-partum.....	350
New-born .....	330
Babies (1 mo.-2 yrs.).....	649
Pre-school age children .....	810
Immunized against diphtheria.....	406
Tuberculosis.....	144
Vaccination against tuberculosis.....	70
Other cases.....	75
Total.....	3,131

Moreover, clinics have been held at the Centre with the following results:

Number of clinics held in the Centre—

Pre-Natal.....	48
Well-Baby.....	170
Pre-School age.....	148
Total.....	366

More clinics have been held for the well-baby group owing to the fact that, since November 3rd, the personnel of the Centre attends the Well-Baby clinic of the adjoining parish of Sacred-Heart. The attendance at the different clinics was as follows:

Pre-Natal Clinic.....	400
Well-Baby Clinic.....	4,777
Pre-School age Clinic.....	1,425
Total.....	6,602

These figures give the following average attendance:

Pre-Natal.....	8.3
Well-Baby.....	28.1
Pre-School age.....	9.6

The total number of individuals registered in the different groups is as follows:

Pre-Natal.....	297
Well-Baby.....	649
Pre-School age.....	511
Total.....	1,457

To explain these figures, possibly a brief comment would not be out of place.

1. *The Pre-Natal Group:*

The pre-natal cases known to the Centre during the year represent 67 per cent. of the births of St. Catherine Parish. On the other hand, in the "Report of the Committee on Municipal Health Department Practice of the American Public Health Association" published in 1923, we note the following proposed percentage: "Our ideal for the present should be a registration of expectant mothers equal to 25 per cent. of the number of births".

In the parish of Sacred-Heart, which has not been so intensively covered, the percentage of pre-natal cases was 26 per cent. But we hope to improve these figures in 1927 because this territory is being now more completely covered than it was possible to do heretofore.

At the Pre-Natal Clinic 41 per cent. of the cases registered come from our district and 59 per cent. from outside. These cases are distributed all over the city. Each patient averaged 3.6 visits in 1926 against 2.6 in 1925.

2. *The Well-Baby Group:*

The registration of this group for St. Catherine Parish was 331 against 240 births in 1926. These figures show that we reach practically all the babies under one year of age and nearly half of the one year old babies.

At the Well-Baby Clinic 50 per cent. of the babies registered come from our district and 50 per cent. from outside. A map of the city displayed in our office shows at a glance that our centre is being visited by families distributed far and wide in the city, from extreme east, west and north limits.

The 50 per cent. registrations in our district have given 64 per cent. of the total attendance. Each baby gave an average attendance of 11.5 in 1926 against 7.8 in 1925.

To appreciate the value of this effort we use the infant mortality rate of the district. Although it may seem premature to do so, as 1926 was the first complete year of our operations, we are glad, nevertheless, to submit the following figures:



Years	Births	Deaths 0-1 Yr.	Rate of Infant Mortality
1915	334	94	281
1916	310	94	303
1917	298	82	275
1918	327	86	263
1919	308	76	246
1920	324	72	222
1921	300	47	157
1922	264	39	147
1923	274	56	204
1924	273	60	220
1925	265	34	128
1926	240	37	154

It is thus seen that the years 1921 and 1922, 1925 and 1926 are the four best years the district has ever had. The last two years also show the lowest number of deaths.

The causes of infant deaths in 1926 are the following:

Gastro-Enteritis	Congenital Deb.	Respirat. Organs	Cont. Diseases	Others	Total
10	11	7	1	8	37

The analysis of gastro-enteritis, the first problem to be dealt with, is shown in the following table:

Years	Deaths caused by Gast. Enteritis	Deaths from unknown causes
1915	14	58
1916	13	67
1917	17	53
1918	16	37
1919	24	16
1920	22	22
1921	12	8
1922	13	10
1923	18	6
1924	23	3
1925	14	3
1926	10	0

Gastro-Enteritis shows a decided improvement. The two best years are again 1925 and 1926.

Our deaths can also be classified according to the following table:

Causes	Deaths under one year of age	
	Registered at Centre	Unknown to Centre
Gastro-Enteritis.....	7	3
Congenital Debility.....	5	6
Respiratory Organs.....	7	0
Meningitis.....	3	1
Whooping Cough.....	1	0
Cachexia.....	1	0
Syphilis.....	1	0
Other Causes.....	1	1
	<hr/>	<hr/>
Total.....	26	11
Grand Total.....	<hr/> 37 <hr/>	

These figures suggest the following comments: All the 7 deaths from Gastro-Enteritis in the group registered at the Centre were among bottle fed babies. No death from Gastro-Enteritis has been recorded among the breast-fed babies.

But of the 26 deaths in the group registered at the Centre 5 have been caused by Congenital Debility or one-fifth. Out of 11 deaths in the group of babies unknown to us 6 have been attributed to the same cause or one-half.

### 3. *The Pre-School Age Group:*

At this clinic 60 per cent. of the children registered came from our district as also 63 per cent. of the attendance. The average attendance per child was 5.2 in 1926 against 3.6 in 1925.

### 4. *Immunization Against Diphtheria:*

During the year 406 children pre-school age were given injections of anatoxoid Ramon. The policy now adopted is to control these immunizations by the Schick Test and to deliver a special certificate to the immune. It is our earnest hope that this new activity will stimulate the parents in having their children effectively protected against this wholly useless, because completely preventable disease.

### 5. *Tuberculosis*

A condensed analysis of our tuberculosis activities is presented in the following tables:

#### (a) Deaths:

During the year 1926 we recorded the following number of deaths—

St. Catherine.....	13
Sacred-Heart.....	10
	<hr/>
Total.....	23

## (b) Estimated number of active cases:

Many factors have been proposed to estimate the number of active cases in a unit of population. Newsholme has proposed to multiply the number of deaths by 3; Biggs has suggested the factor 5; Knopp the factor 8; and Phillipp the factor 10. At Framingham, after a thorough survey of practically the whole of the population, the number of active cases found was 9 times the average number of deaths of the 5 preceding years.

To keep ourselves within the bounds of possibility we can accept the factor 8.

We can now estimate as follows the number of possible active cases in our district:

St. Catherine.....	104
Sacred-Heart.....	80
	<hr/>
Total.....	184

## (c) Active cases actually known:

The first step in an anti-tuberculosis campaign is to locate as many as possible of the active cases of the disease, because there are as many sources of massive contamination of contacts.

Our figures are as follows:

	Known cases of tuberculosis	
	Jan. 1st, 1926	Jan. 1st, 1927
St. Catherine.....	47	62
Sacred-Heart.....	16	27
	<hr/>	<hr/>
Total.....	63	89

Calculated in percentages with the possible number of active cases these figures give the following results:

	Jan. 1st, 1926	Jan. 1st, 1927
St. Catherine.....	45.0%	59.6%
Sacred-Heart.....	20.0%	33.8%
	<hr/>	<hr/>
Both Parishes.....	34.2%	48.3%

These figures show the progress realized during the year. They establish also that half of our possible active cases in the district are actually known to us.

The average number of active cases carried each month is 70.

Our 144 cases known to us during the year can be distributed as follows:

Moved out of the district.....	36
Transferred to an institution.....	6
Cases kept under supervision as suspected but found not to be tuberculosis.....	7
Dead.....	6
Active on the 1st of January, 1927.....	89
<b>Total.....</b>	<b>144</b>

The high number of moved cases shows one of our greatest difficulties: the floating character of our population. Every possible effort is put forth to locate these cases and to have them followed at their new addresses.

(d) Contacts:

The new cases of tuberculosis in 1926 were found to have 274 contacts or an average of practically four per case.

All possible help is offered these people, notably the admission of the children at the different summer camps: the David Camp, at Oka, of the Bruchési Institute, the Colonie des Grèves, at Contrecoeur of the Board of Catholic Schools of Montreal, the Camp of Chambly of the Montreal Star. 61 of our children, either T.B. contacts or under-nourished, were proposed at these camps and 24 only have been admitted. Let us all hope for the great development of these institutions which so largely contribute to the physical upbuilding of our under-privileged children.

(e) Visits:

The number of visits made in connection with tuberculosis is as follows:

St. Catherine.....	709
Sacred-Heart.....	237
<b>Total.....</b>	<b>946</b>

Moreover, due to Prof. A. Pettit's services to the University of Montreal as a delegate from Pasteur Institute, Paris, the Centre has been privileged in being supplied with B.C.G. vaccine against T.B.

This initiative was started on June 23rd, 1926, and by the 1st of January, 1927, period of six months, 70 new-born babies had been given the 210 necessary doses. Fortunately none of these babies is in contact with active cases of tuberculosis. They are kept under supervision and the analysis of their records on the 1st of January shows the following facts:

In good health.....	63
Moved out of the city.....	2
Moved out of the district.....	1
Sick (cases not connected with T.B.).....	3
Dead (age: 1 mo. Cause: Congenital Deb. and Gastro-Enteritis)..	1
Total.....	70

Another contribution about to be started is to ascertain the age incidence of tuberculosis infection in our population. To this end a routine Von Pirquet Test is to be given to the babies and the children coming to our clinics.

## II. *General Contribution*

During 1926 it was also my privilege to give some contribution to different organizations interested in Public Health.

### 1. Crèche of the Misericorde Maternity:

At the invitation of one of the sisters, I have prepared an analysis of the statistical data of the institution. This report completed by graphs, is actually being studied by the personnel of the Crèche.

### 2. Crèche d'Youville:

Following my contribution to the Crèche of the Misericorde Maternity, I have been invited by the authorities of the Crèche d'Youville to visit their large institution. There, also, most complete information were found available and were extensively used in preparing a report covering their activities since 1896. I understand that this report brought some help in improving the medical service of the Institution.

### 3. Central Board of Parochial Well-Baby Clinics:

Since the opening of our Centre I have been honoured in being elected member of the Central Board of Parochial Well-Baby Clinics. This membership has afforded me the great advantage of studying more intensively this organization which has under its supervision one-fourth of the total infant population of the city.

Notwithstanding the encouraging progress they had realized, nevertheless the directors have felt that the time has arrived to have their 18 Well-Baby Clinics conducted along more modern lines. Accordingly a Committee was appointed to prepare a new constitution. This study has taken the whole year, and the report was finally presented at the annual meeting held on the 27th of February last and adopted.

### 4. Bruchési Institute:

I have also the good fortune of being a member of the Medical Board of Bruchési Institute for a number of years. In this capacity I have been asked to prepare a complete report of all the activities of the clinic since its opening in 1911. This report, illustrated by many graphs,

has been duly adopted both by the Medical Board and the Board of Administration. It is now being printed for general distribution.

5. Lectures in Hygiene and Public Health at the University of Montreal:

For the last five years I have also acted as lecturer on Hygiene and Public Health to the students of all the Faculties of and Schools affiliated with the University of Montreal. The opportunity is thus given me to explain to all of our undergraduates the most important problems in personal hygiene and public health. Through these lectures the authorities of the University have in mind not only to be of service to the students themselves, but also to contribute in developing public health generally by having the leading class of to-morrow in our communities already informed of these problems and therefore better disposed in helping in their solution.

6. Associate Committee on Tuberculosis:

In 1925 an Associate Committee on Tuberculosis was appointed by the National Research Council to study different aspects of the problem of tuberculosis.

It was my privilege as one of the executive members of this Committee to use the French Health Centre of the League under the auspices of the University of Montreal, as a field of demonstration of the B.C.G. vaccine and for determining the age incidence of tuberculosis infection in our community.

7. Society of Infantile Hygiene:

This Society, founded in December, 1925, held, in our premises, 6 meetings with a total attendance of approximately 124 physicians and 120 nurses.

Important problems were thus presented and fully discussed to the great benefit of the campaign against infant mortality carried on by various institutions in our city.

8. Extra-Mural Course:

In 1926, through the Canadian Medical Association, an Extra-Mural Course was organized in the Province of Quebec and a group of professors invited to give lectures in different localities in the province. It was thus my privilege to take part in public meetings held in 8 different municipalities and to expose a few of our problems in public health, notably infant mortality and immunization against diphtheria.

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# Non-Typical Wassermanns in Spinal Fluids

MABEL M. MALCOLM.

*Serologist: Vancouver General Hospital Laboratories, Vancouver, B.C.*

The following is offered as a contribution to the Chemistry of the Wassermann reaction.

ON August 31, 1921, two specimens of spinal fluid were found to show a positive reaction with an acetone-insoluble antigen but the cholesterinized antigen was negative. It was immediately assumed that an error of technic was the probable explanation and the tests were repeated but with the same result. A few days later the same result was obtained with another spinal fluid. Since then a similar reaction has been obtained with five other spinal fluids, so that we consider a permanent record of our experience should be made.

TABLE I

Total Wassermann tests .....	26,478
Blood serum, Wassermann tests .....	24,782
Total Spinal Fluids, Wassermann tests .....	848
Positive Spinal Fluids, Wassermann tests .....	176
Negative Spinal Fluids, Wassermann tests .....	663
Irregular Spinal Fluids, Wassermann tests .....	8

Table No. I. shows a summary of the Wassermann tests made from Jan. 1921, to 30th of Oct. 1925.

A consideration of Table No. 1 does not permit of a technical error as an explanation of the cause of the atypical reaction, for the last five spinal fluids showed this reaction in the hands of one worker using the same technic throughout. Also there were about thirty times (29) as many sera examined during the time as there were spinal fluids. Pure errors in technic should appear more frequently among the sera than among the spinal fluids but we have never experienced this reaction when working with blood sera. The acetone-insoluble antigen which was used for all of the tests was prepared according to Bordet's method. The cholesterinized antigen used for the last five spinal fluids was prepared by the method of Kolmer.

Table No. II gives a summary of the other available laboratory findings in these same spinal fluids and such clinical notes as are available will be found below.



TABLE II

Case No.	1	2	3	4	5	6	7	8
Cholesterinized Antigen	0	0	0	0	+	0	0	0
Acetone Insoluble antigen	+	+	+	+	+	+	+	+
Colloidal Gold	0		0	0		0		
Fluid	Clear			Clear		Clear	Clear	Slight Cloud
Cell Count	20 Lymph.	2		0		0	210 Poly.	200 Lymph.
Globulins Increased	+			Slight		Slight		+
Fehling's Reduction		+		+			0	+

In Tests 1, 2, and 3, a plain alcoholic extract with 0.2% Cholesterin was used—Medical Research Committee, Report No. 1.

In Tests 4 to 8, Kolmer's Cholesterinized antigen was used.

#### CASE NOTES

- No. 1. Miss L., Wassermann test, August 31, 1921—Age 35. Severe paroxysmal pain in neck and occipital region for previous six months; vomited at times; eye grounds normal.—general examination negative; specific treatment; in Sept. 1922 improved and able to work after six injections of salvarsan.
- No. 2. Mr. H., Wassermann test August 31, 1921—Diagnosed bulbar paralysis by a neurologist.
- No. 3. Mr. McK., Wassermann test September 2, 1921—Age 42; history of syphilitic infection some years before; complaint pain, in head. Died with symptoms of meningitis. No autopsy.
- No. 4. Mr. K., Wassermann test Feb. 24, 1922—Age 35. On Feb. 18th 1922, "had a chill" with delirium at times; diplopia; slight internal strabismus of right eye; bilateral ptosis; reaction to light weak; knee jerks difficult to obtain; plantar reflex, flexor in type; no stiffness of neck; temp. 101°; pulse 130; later became quiet and drowsy; spinal puncture on Feb. 23, 1922, yielded 30 c.c. of fluid under considerable pressure. Died suddenly on Feb. 24. Autopsy; congestion of cerebral vessels particularly in the floor of the fourth ventricle. Microscopically there was lymphoid infiltration about the walls of the small blood vessels. Diagnosis; Encephalitis Lethargica.



- No. 5. Wm. L., Wassermann test Sept. 20, 1922. Autopsy, Cerebral tumor.
- No. 6. Mrs. N., Wassermann Sept. 12, 1922—Age 46. Japanese. History of repeated miscarriages and anti-syphilitic treatment. Complained of pain at angle of left lower jaw.
- No. 7. M.O., Wassermann, May 17, 1925. Age 20—female. Clinical course of tubercular meningitis. Autopsy and bacterial confirmation.
- No. 8. E. S., Wassermann test, Aug. 19, 1925. Died three days after onset of symptoms. Diagnosis acute anterior-poliomyelitis.

It is significant that these eight atypical reactions occurred in only 1% of the 848 spinal fluid tests and never occurred in 24,782 blood-serum tests, though the same reagents were used for both spinal fluid and blood-serum tests. It must be remembered that the Wassermann test is not specific for a spirochaete infection; on the contrary, the antigen used is an ether-soluble extract of normal tissue. The addition of cholesterol, an ether-soluble substance, further alters the reaction, usually making it more sensitive. The more or less rare "false positive" Wassermann reactions occur only in Yaws and Leprosy, clinical conditions associated with lesions of the nervous system. It is significant therefore that an atypical reaction appeared in the fluid bathing the central nervous system, for the brain and spinal cord are known to be high in their ether-soluble contents.

I am indebted to Dr. R. E. Coleman, Assistant Director of the Vancouver General Hospital Laboratories for valuable suggestions in writing this paper.

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# The Seymour Plan

By FREDERICK CHARLES HILL

*Assistant to the Director, Division of Venereal Diseases Control, and  
Veteran of the Great War*

THE subject that I am to speak on to-night is the Seymour Plan.  
What is the Seymour Plan?

It is a plan for a concentrated campaign against three of the most common communicable diseases that are absolutely preventable, namely, Diphtheria, Smallpox and Typhoid Fever.

This Plan is not something that has been imported, it is a home product, thought out and devised by a Canadian, and, what is more, by a man in our Province, Saskatchewan.

I refer to Dr. M. M. Seymour, Deputy Minister of Public Health of Saskatchewan, a man who has been looking after the public health of this province for twenty years or more, and a man in whom we all have every confidence.

This Plan is so simple that every one can understand it, that is the beauty of it. It was devised, as I said before, by Dr. Seymour and proposed in his presidential address at the Conference of State and Provincial Health Authorities of North America, last year, was endorsed by the Conference and, in honour of Dr. Seymour, was named "The Seymour Plan." It has since been approved by the Canadian and American Medical Associations as well as by other Public Health Associations of North America. When I speak of "North America" I am referring to the whole of Canada and the United States, including the Hawaiian Islands.

At the present time it is in operation in all of these places.

The Plan proposes to get results:

By Co-operation, Concentration and Education.

*Co-operation* of all health agencies, official and voluntary on the North American Continent, the Canadian Medical Association, The American Medical Association, The Federal Department of Health of Canada, the United States Public Health Service, the Churches, the Press, Educational Authorities and all other agencies that can in any way assist.

*Concentration* of effort on the part of the foregoing organizations, by propaganda and publicity in the daily and weekly press, current magazines, moving picture theatres and by public addresses.

*Education* of the public to the fact that Diphtheria, Smallpox and Typhoid Fever are communicable and preventable and by making use of the knowledge which medical science has made available that these diseases can be prevented.

The Plan originally called for a campaign lasting two months against each disease, and this has been more or less vigorously carried out all over the continent. But if you have not started, there is no reason why you should not start NOW.

In some districts the town councils have made arrangements with their medical officer to vaccinate every child in the district, the Council paying the doctor for his service and the vaccine being supplied free by the Dept. of Public Health. They have been assisted by committees appointed from local organizations and service clubs, who see that every child gets to the clinic or central point where the vaccinating is being carried out.

The question may be asked, why should the Council spend public monies on such things? I think that can be answered by the old adage which says that an ounce of prevention is worth a pound of cure. The Secretary of the Minnesota State Board of Health said in a circular issued last year that Lakin Township, Morrison County (Minn.), paid \$266.40 for the care of three cases of smallpox and the burial of one. Free voluntary vaccination of the remaining 107 residents of the township cost \$70.90. No cases of smallpox occurred after the vaccination.

The Windsor, Ontario, smallpox outbreak early in 1924 cost Windsor taxpayers \$35,000.00 and the death of 32 residents. The vaccination in 10 days of 90% of the citizens put a stop to the outbreak of smallpox.

The Health Commissioner of the City of St. Louis said in an address before the Optimists Club in that city on Dec. 11, 1924, that it cost the city more than \$150.00 to care for every case of smallpox, but to prevent a case of smallpox by means of vaccination cost less than one-thousandth as much.

During the last ten years 2,762 cases of smallpox have been reported in the Province of Saskatchewan. In 1926 there was an increase in the number of cases reported over 1925 of 545%. An appalling increase of a disease that is absolutely preventable.

Smallpox was the first of the infectious diseases demonstrated to be preventable by vaccination. The evidence is so clear, so unmistakable, and so convincing that it is a perpetual wonder that opposition can raise its head.

The vital queries about vaccination to the man on the street are: Will it prevent smallpox? Is it a safe procedure?

These have but a single answer—YES—and this answer is plain to any normal mind that will ponder the following questions for a moment.

Is it reasonable to believe that learned physicians the world over would uniformly uphold and recommend vaccination if it was a false doctrine?

Is it reasonable to believe that Government Public Health officials would spend their time and energy persuading the people, upon whose welfare their jobs and well-being depend, to become vaccinated, if it was a hazardous undertaking?

Is it reasonable to believe that industrial life insurance companies, that think more of dollars and cents than of theories, would spend thousands of dollars persuading their policy-holders to become vaccinated if the proposition would in any way endanger health or life?

Is it reasonable to believe that governments would spend vast sums of money in vaccinating soldiers and sailors, upon whose health the welfare of the country depends, if there was even a serious doubt as to the efficacy and safety of the procedure?

Is it reasonable to believe that physicians universally recommend vaccination in order to get a fee for their services when the treatment of a single case of smallpox would yield a much higher revenue than a score of vaccination fees.

It really seems ridiculous to have to uphold or defend the process of vaccination against smallpox after civilized peoples have enjoyed its blessings for more than 100 years.

The claim has been made that vaccination is dangerous. The medical officers of the United States Army and Navy have, since 1917, vaccinated approximately 6 million persons. Only one of the 6 million died during the course of vaccination and that man died of pneumonia.

During the smallpox epidemic in Detroit in 1924 817,000 persons were vaccinated without mishap.

Some people question the value of vaccination in preventing smallpox and try to explain the occurrence of smallpox epidemics upon some other factor rather than the presence of many unvaccinated persons. There is so much evidence in proof that vaccination does protect against smallpox that a whole magazine could be filled with facts and figures on the subject. I should like to refer you once more to the Detroit outbreak of 1924.

Detailed data was collected concerning 3,574 persons that were intimately exposed to various types of smallpox. Of this number 928 had been successfully vaccinated within the past five years. Not a single one of the persons contracted smallpox.

There were 1,296 persons so exposed who had been vaccinated more than five years previous. Of these 27, a little more than 2%, contracted smallpox. There were 1,350 persons so exposed who had never been vaccinated, and of these 180 or 13.3% contracted smallpox.

No one contracted smallpox in Detroit who had a scar of recent successful vaccination. Twelve developed smallpox who had scars of from 6 to 10 years' duration, 35 with scars from 11 to 25 years old, and 66 with scars over 25 years old. The remaining 677 persons that developed smallpox had never been vaccinated.

Considered in cold blood, these unnecessary epidemics do not pay, they are a cruel waste of money both to individuals and to the State. If I am going to spend my money I would rather spend it on an ounce of prevention than invest many dollars on many pounds of cure.

There were 581 cases and 127 deaths from diphtheria in Saskatchewan in 1925. During the same period there were 95,100 cases of diphtheria and 8,455 deaths in the United States. Approximately 90% of the deaths from diphtheria occur in children under ten years of age.

There are three ways we may close the doors of our own home against so cruel a disease:

1. Protection against exposure to virulent diphtheria germs.
2. Vaccination of susceptible persons, so that if exposed to the disease they will not contract it.
3. Curative treatment, chiefly by the administration of antitoxin.

I am not going to say anything about the curative treatment, that is for the physician, but I do want to say a few words about the prevention of diphtheria, because it can be absolutely prevented by the toxoid or toxin antitoxin.

A cure is a miracle, but prevention of a disease is as beautiful as a law of nature or of God. When every father and mother realizes that there need not be any more diphtheria, diphtheria will cease to exist. The means are perfected, but it remains for the parents to make use of this means and make their child safe from infection.

That this is now possible is due to the patient work of investigators, notably that of Dr. Wm. Park of New York.

The method which these men have devised for immunization consists of injecting into the arm a very minute amount of toxoid. Toxoid is prepared from diphtheria toxin and formaldehyde. Toxoid is administered by the physician in a very simple manner with no risk or discomfort to the child. Two injections are given one month apart, and the best age is any time during the first year, preferably after the third month.

Regarding the value of diphtheria vaccination, I should like to tell you of an experience that I had just recently. One year and a half ago I accompanied Dr. Seymour on an inspection trip to the far north of the Province. We went to the Ile a la Crosse and Buffalo Lake district. This territory lies about 300 miles north of the railroad and there are

no doctors in that part of the country. The only way to travel there in summer is by canoe and in the winter by dog team.

On that trip Dr. Seymour vaccinated hundreds of children against smallpox and diphtheria. At Green Lake Settlement they have a school, which is, I think, the farthest north public school. There are other schools farther north but they are in connection with missions. At this school at Green Lake was Mr. Snyder, the teacher. He was married and had 6 little children, ages ranging from 2 months to 12 years. They were all vaccinated for smallpox and immunized with toxoid against diphtheria by Dr. Seymour, with the exception of the two months old baby.

I happened to be in Blaine Lake last December and I was surprised to meet Mr. Snyder. He had left Green Lake and had come to live in Blaine Lake. He asked me why Dr. Seymour had not given his baby toxoid when he gave it to his other children. I explained that the baby was too young at the time, and that while the baby was nursing that it obtained a certain amount of immunity from the mother's milk.

He said: "Well, about six months after you folks left the baby contracted diphtheria and died." I asked him if any of the other children contracted the disease and he said: "No, and they were all in the house with baby."

I could give you other instances but that one should suffice. It happened right in our own province and I have given you the man's correct name and address.

"There are too many small graves in our cemeteries. Men may smile at many things but fathers cannot smile when mothers ask why their child died of diphtheria, a curable and preventable disease. Mothers want to know WHY their babies are not being given a fair chance."

Typhoid fever is another communicable disease that is preventable. During the year 1925 there were 223 cases of typhoid reported for Saskatchewan with 39 deaths.

Typhoid fever is more of a rural disease, and 184 cases occurred among the rural population and 39 cases occurred in the cities. The reason for this is on account of the improved sanitary facilities in the cities. The typhoid bacillus that causes typhoid is evacuated in the excreta by the typhoid patient. If these stools are not properly disinfected or are exposed to flies the flies will carry the infection to your food.

To contract typhoid fever you must swallow some typhoid germs, and these germs are communicated by one of the 3 "F's", flies, fingers or food. So you girls and boys should always wash your hands before eating, and parents, you should always see that your home is well screened against flies.

Contamination of milk supply with typhoid fever germs is still another cause of the spread of typhoid fever. Pasteurization of milk destroys the typhoid germ, and the only way to make the public milk supply safe is by pasteurization.

A community is not protected against typhoid fever so long as it has one unsanitary privy.

A sanitary privy is one, the contents of which will not pollute the water supply, and one which flies cannot obtain access to the contents. This can be accomplished by having it built far enough away from your water supply and by having a fly proof cover.

During the South African War there were 30 deaths from typhoid fever for every death from casualty. During the Great War typhoid fever was practically unknown due to improved sanitation and preventive inoculation.

Typhoid inoculation is a wise precaution to be taken by those who have to visit places or live in places where the sanitation is not good.

These are a few of the facts that we want the public to know in regard to the prevention of these diseases. **HEALTH IS WEALTH: SICKNESS SOON BEGETS POVERTY**, don't let us get sick.

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# The Reduction of Infant Mortality

By DR. A. C. JOST

*Provincial Officer of Health of Nova Scotia*

THERE was a time when the reduction of losses of infant lives was of most intense interest to Nova Scotians.

The Province then was in the unfortunate position of losing a wholly disproportionate number of infants each year. We had lagged behind the other provinces in this particular. In comparison with these our records were not favourable. When our health officials undertook to talk of the matter, it was to confess our shortcomings and to urge that there be undertaken here some of the measures which elsewhere had been efficacious and by the adoption of which the deaths of many infants had undoubtedly been averted. There were countless instances where well-directed efforts had been followed by improvement. The adoption of these measures would here, we thought, also prove their worth.

At that time we were losing about 1,300 or 1,400 infants each year in the Province. For the sake of convenience these losses are often measured by a rate per thousand births. Thirteen or fourteen hundred infants dying each year gave us a high rate, well above a hundred per thousand, or, in other words, we were losing more than ten infants out of each hundred born. It can be understood that we were indeed desirous of having some improvement brought about.

As matters now stand, we are in a wholly different position. We can still talk about the matter, but now we can say that in place of one of the most unfavourable rates of the Dominion, this Province now has an extremely creditable one. Where formerly we lost thirteen or fourteen hundred infants a year, last year we lost less than eight hundred. The rate has nearly been halved. From one of the highest of the Dominion rates it is now quite well down the list. This permits us to speak of the matter, not from the viewpoint of what we can do, but rather from that of what has been done.

It has been repeatedly stated by those who are well versed in matters connected with health preservation that the losses of infant lives which a community permits is an extremely good index of the interest which that community takes in health matters, the extent to which the people generally have been educated in health preservation and the development of what might be called a health conscience. There is every



reason why mothers should be anxious to save their offspring. This is so obvious that it seems unnecessary to state it. But it is equally obvious that many do not know how to do so, have not had the training and do not possess the knowledge which is required for the protection of those so dear to them. The avidity with which these learn, the desire they have to acquire and put into practise the knowledge, is such that in no field of public health work are more striking or more speedy results obtained.

There are communities where at the present time not more than half the infants born live to complete a year of life. There are others—and it is gratifying to know that the best records of all have been obtained in a country allied to Canada in origin and political connections—where of a thousand born only some forty die during the year. The record of this Province last year, where the rate is less than seventy, places us in an extremely favourable position.

Very satisfactory as this is, we must, however, admit that it can be bettered. Let us take, for instance, one month of the past year, and examine a little closely the reported deaths, for the purpose of ascertaining those instances were presumably, under somewhat different circumstances, deaths might have been averted.

In September, 1926, there were 74 infant deaths in the Province, about a twelfth of those which occurred during the whole year. We find in the first place that 12 of this number were due to what was reported to be congenital debility, and that nine more were due to prematurity of the birth. In all, this makes 21, or nearly a third in which it is quite conceivable that the proper treatment of the mother or greater care on her part either before or after the birth of the child, might have been of very material importance, and have saved a fair proportion of these lives. Nine more deaths were due to pneumonias or bronchitis, and here again it appears reasonable to think that some might have been saved had greater care been given the infants and had they been protected from exposure and infection. By no means can it be said that this would have applied in every instance, but it might have been efficacious in some. Six deaths were put down to convulsions, and there were fourteen due to diarrhoeas and other intestinal disorders. When we remember to what extent these may have been influenced by irregular or improper feeding and faulty diet, it seems that under somewhat different conditions there might have been some lessening of these losses. Lastly, there were four due to infections, three of these being from tuberculosis. Surely some of these might have been saved had there been greater care taken. We have reason to believe that there were but two ways in which the tuberculous infection was carried to these infants. It was given them, either in the milk of tuberculous cattle

or as a result of infection contracted from some person with whom they had been brought closely into contact, the proper precautionary safeguards not having been taken.

Altogether it seems to be reasonable to think that among these 74 infants there were some, just how many we can not say, whose deaths, under somewhat different circumstances, might have been averted.

But, some persons say, these deaths were decreed. These unfortunates had to perish for an evolutionary purpose. They must die in order that the remainder survive under better conditions. Their deaths, in some inexplicable way, results in the improvement of the species, and if you prevent them, you are doing the race an injury.

This is an argument constantly met with, one frequently evoked to discourage not only the attempts being made to diminish the number of infant deaths, but the number of those occurring from any of the infections. Precisely how we were better off in this Province when we were losing 1,400 infant lives a year than now when we are losing only about 800 is not very obvious, and one is excused if the argument does not appear to be very impressive. Would we be still better off, one can not help asking, if all the infants died? There may be some for whom death brings a welcome relief, but that the human race would be better, because some mothers had not been given the care they deserved, because some of the infants had been given insufficient or improper food, or because fatal doses of tubercle bacilli had been wittingly or unwittingly inoculated into others can not be easily proven. There are certainly few of us who would care to immolate our own on that altar of evolutionary necessity, and our every instinct rejects such philosophizings. And we all prefer the mental attitude which results, for instance, in saving about 960 infants out of 1,000 born alive, as is done in New Zealand, to that which condones in some of the densely populated eastern cities the loss of about half of all the children born.

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# The Antisyphilitic Pharmacopoeia of Fracastorius

By THE HONOURABLE WILLIAM RENWICK RIDDELL, LL.D., D.C.L.,  
*President, Canadian Social Hygiene Council*

(Having left untranslated many of the terms employed by Fracastorius,  
I here collect and explain them.)

(Continued from February)

Cinnama—the different kinds of Cinnamon.

Cinis Ficus: Ash of Figs (possibly a misprint for Cinis Faecum, a very superior potash from lees of wine and vine leaves): Cinis, C. 2, 33: 5, 6, a rodent 5, 7—an exedent (Dios. 5, 43, says the Cyprian is the best): 7, 1, &c., &c.

Citrus: from the glowing description given by Fracastorius in his "Syphilidis," Lib. III, this particular Citrus seems to be the lemon, C. Limonium or C. Medica. Dios. 1, 131, treats of oranges, lemons, pomegranates, &c., &c., as Mala.

Clematis: a whole genus of plants is so called—almost certainly Clematitis is meant, Traveller's Joy, the Clematis vitalba (Linn.) of which Pliny speaks, *Nat. Hist.*, 25, 8, 94. Dios. 4, 6, the seeds ground act on bile and phlegm—used also in lepra.

Galen, *De Facult. Simp. Med.*, Lib. VI, p. 158 says much the same. It grew in Greece, Apulia and Syria.

Cnicus or Cnecus: originally the Safflower, Carthamus tinctorius, now used for the Blessed Thistle, Cnicus (or Carduus) benedictus. The older botanists sometimes used Cnicus agrestis or Cnicus sylvestris for the Blessed Thistle. Dios. 3, 89, calls it Atractylis and says that the foliage and seed "ground up with pepper in wine are most valuable against scorpions. They say that so long as this herb is carried by those struck (by scorpions), they feel no pain; but as soon as they lay it down, the pain returns."

See Carduus *ante*—It does not grow as far north as Toronto.

Colchicum or Hermodactyl: Colchicum autumnale, the common Colchicum—on this continent cultivated for the rose-purple or lilac flowers. "Syphilidis", Lib. II, 190—"dulci colchica bulbo"—the colchicum with its sweet bulb. Dios., 4, 72, calls it also Ephemer-

on; it grows in the Messenia and Colchis—"it helps cows to give milk, and so when it is about, no other help is to be desired"—it is used in medicine like the Fungi.

Les., p. 58, speaks of two kinds—it "draws gross phlegm and ordures"—helps in gout.

**Colocynthus:** *Cucumis Colocynthis*, (*Citrullus Colocynthis*), Bitter-apple.

Dios. 4, 158, ecboic, cures tooth-ache, purgative.

Les., p. 32, "dangerous and useful to man . . . useless without mastic. . . a very subtle thing for phlegm and black bile . . . kills worms of stomach and ears . . . cures spleen, haemorrhoids, indurated liver and fills them with joy".

Charas, p. 278, had "Trochisci alhandal" of Colocynth for purging "pituita and the crass and viscous humors".

**Condrilla:** *Chondrilla*, Spanish Succory—see Pliny, *Nat. Hist.*, 22, 22, 45—against serpents "probably, constipating, &c., &c. Dios. 2, 126, sometimes called "Cichorion" or "Seris", used for awkward hair in the eye-lashes.

**Consiligo:** *Pulmonaria officinalis* (Linn.) Lungwort, Jerusalem Sage, mentioned by Pliny, 25, 8, 48: 6, 7, 21; Columella, 7, 5, 3 calls it "most salutary for all flocks".

Pliny, *Nat. Hist.*, 5, 5, 45, says it is helpful in phthisis; 6, 7, 1, recommends the root. Dioscorides' *Pulmonaria* is a lichen, *Hepatica* or liverwort.

**Corna:** *Cornus mas*, the Cornel, Dios. 1, 135, the fluid from the leaves is useful in impetigo as a wash.

**Cornu Cervi:** Deer's Horn, Hart's Horn, C. 3, 20—in the case of a "lethargus", they "burn near him, Galbanum or hair or cornu cervinum—or if there is none, something else; when these are burned, they give out an offensive smell"—Celsus does not seem to have heard of burnt feathers. C. 5, 5, *Cornu cervinum* is a purgative. Celsus also used *cornu bubuli*, cow's horn.

**Costus (-um):** A name given to several Oriental aromatic plants: the roots were considered by Celsus, concoctive, tonic, carminative, diuretic, emmenagogue, &c., C. 3, 21: 5, 3; &c. Dios. 1, 15, all these qualities and more—against snake-bites, anthelmintic, aphrodisiac, for facial blemishes, &c.

Les., pp. 46, 47, says that some contend that there are two drugs of this name: of the bitter, *Costus amarus*, which is the *Costus* of Pliny and Dioscorides, (sometimes identified as the *Saussurea Lappa*, Clarke) he says that it is good against tremefactions, also against the chill of fevers, to cure facial blemishes, kill intestinal worms, is diuretic and emmenagogue. He thinks that "it is only

an abuse" to speak of two kinds—there was, however, a *Costus dulcis*, apparently the bark of white cinnamon.

*Crenanium*: Common name for *Condrilla*, q.v.

*Crithmus* (-um): *Crithmum maritimum*, Samphire. Dios. 2, 122, sometimes *Crithamon*, helpful in dysuria and jaundice.

Quincy, p. 119, "they are said to be stomachic, aperient and diuretic".

*Crocus*, *Crocus sativus*, Saffron.

C. 4, 10, for kidney affections; 5, 18, 3, for the liver, &c., &c.

Dios. 1, 25, the best is Corycean, *i.e.*, Cilician, (in this agrees Pliny's *Nat. Hist.*, 5, 27, 22), but that from Thessaly and elsewhere is also good—along with human milk makes a good collyrium, it is aphrodisiac, useful in erysipelas, diuretic.

Les., p. 72, uses it with "papaver" mixed with human milk for gout—he calls it "Saffran", p. 95, an appetiser, aphrodisiac, diuretic, cleanses eyes and ears, &c.

Charas has many preparations of Saffron, amongst them a *Vinum croceum* (p. 104) of an ounce of Saffron in a pound of Canary Wine, macerated for six days.

Quincy, p. 119, "an elegant aromatic . . . serviceable in hysteria, depression".

*Cuculi*: Cuckoo-fish, Cuckoo-wrasse, *Labrus variegatus*.

*Cucumis anguineus*: the wild cucumber or gourd.

*Cupressus*: *Cupressus sempervirens* (Linn.), the Cypress—Fracastorius calls it "*Cupresses immortalis*", Celsus, 3, 21, makes its seed diuretic: 5, 11, discutiant: 6, 6 (16), anti-inflammatory, &c., &c. Dios. 1, 76, cures nasal polypus, scabrous nails, intestinal hernia, agglutinates ulcers and wounds and strengthens the stomach.

Quincy, p. 120, can only say that its fruit is a strong astringent.

*Cydonia*: *Cydonia vulgaris*, Quince.

*Cynabaris*: *Cinnabaris*, q.v.

*Cyna* or *Cynara*: Artichoke, *Cinara*, q.v.

*Cyphi* or *Cuphi*: An Egyptian perfuming powder; the composition seems to be unknown.

*Cytinus*: properly the calyx of the pomegranate blossom. Pliny, *Nat. Hist.*, 2, 3, 6, 59. Dios. 1, 127, on *Malum Punicum*, says "*Huius flores cytini uocantur*" and says they are astringent, siccant and agglutinative.

*Diachalcitis*: A plaster of oil and ferric oxide.

*Diachylon*, sometimes *Diaculum*, *Diachulum*, &c.: A plaster once made with the juices of certain plants, now lead plaster, *Emplastrum Plumbi*.

*Diacolocynthidos*: Compound *Hiera* of *Colocynth*—see *Hiera*, *post*.

**Diambra:** A kind of tonic compound powder, generally odorous. Quincy, pp. (273), (274), gives the following prescription for non-odorous: Cinnamon, Angelica root, Cloves, Mace, Nutmegs, Malabathrum and Galangal, each 3 dr.; Spikenard, Greater and lesser Cardamoms, each 1 dr., Ginger,  $1\frac{1}{2}$  dr.; Aloes-wood, Yellow Saunders and Long Pepper, each 2 dr., Fiat pulv. Sig. 10-30 grs. For odorous diambra add Ambergris and Musk, of each  $1\frac{1}{2}$  dr.

**Diamorum (-o):** a boiled juice extract of mulberries, *Morus*, generally *Morus nigra*.

**Diamuscum:** apparently a preparation from the musk mallow, *Malva moschata*.

**Diascordion or Diascordium:** A compound medicament of which Scordium (Scordion) was a main ingredient. Fracastorius' Diascordion was highly esteemed for 300 years—the prescription is given in the Text. Quincy, p. (227), says that it has been inserted in the London Dispensatory as well as the Augustan Dispensatory—the ingredients had been slightly altered, but he gave, as he thought, the original. Comparing with Fracastorius' own words, I find the only difference is that the original has  $\frac{1}{2}$  lb. of aromatic wine and Quincy has 8 ounces of generous Canary. At p. (223) is given the Diascordium of the Edinburgh Dispensatory—the following is a comparison:

Fracastorius	Edinburgh Dispensatory
Scordium 1 oz.	Scordium 1 oz.
Cinnamon $\frac{1}{2}$ oz.	Cinnamon 1 oz.
Cassia-wood	
Cretan Dittany $\frac{1}{2}$ oz.	
Tormentilla $\frac{1}{2}$ oz.	Tormentilla $1\frac{1}{2}$ oz.
Bistorta $\frac{1}{2}$ oz.	
Galbanum $\frac{1}{2}$ oz.	
Gummum $\frac{1}{2}$ oz.	Gum Arabic 1 oz.
Opium $1\frac{1}{2}$ oz.	Opium <sup>g</sup> (quantity not given)
Styrax $4\frac{1}{2}$ dr.	
Acetosa $1\frac{1}{2}$ dr.	
Gentiana $\frac{1}{2}$ oz.	
Arm. Bole $1\frac{1}{2}$ oz.	Armenian Bole $1\frac{1}{2}$ oz.
Lemnian Earth $1\frac{1}{2}$ oz.	Japan Earth 1 oz.
Piper longus 2 dr.	
Zingiber 2 dr.	
White Honey $2\frac{1}{2}$ lb.	
Vinum Aromat. $\frac{1}{2}$ lb.	
Zucharum rosatum 1 lb.	Syrup of dry roses 27 oz.
	Olibanum 1 oz.



The Paris formula is given in Dunglison's Medical Dictionary, Phila., 1874, p. 314.

Charas has an Electuarium diascordium reformatum, p. 248, of Scordium, Red Roses, Armenian Bole, each 1 oz.; Styra, resin, cinnamon, cassia wood, leaves of Cretan dictamnus, root of tormentilla, bistorta, gentian, galbanum, amber, Lemnian earth, each  $\frac{1}{2}$  oz.; opium, pepper (long), ginger, oxalis (female), each 2 dr.; strained roseated honey 3 lbs. 4 oz.; Malvoisie wine 2 oz. M. Fiat elect.

Dictamnus: Dittany: two kinds are mentioned; Dictamnus Creticus, Cretan Dittany, the better kind, was generally called Dictamnus Albus or Origanum Dictamnus; the other Dictamnus Fraxinella was a native of Italy. Vergil: *Aeneid* XII, vv. 411-414, says:

"Hic Venus, indigno nati concussa dolore  
Dictamnum genetrix Cretaea carpit ab Ida  
Puberibus caulem foliis et flore comantem  
Purpureo . . ."

Here Venus, the mother, deeply moved by the undeserved pain of her son, gathers from Cretan (Mount) Ida, dictamnus, the stem garnished with full grown leaves and purple flower. She treated the wound of her son Aeneas with it; and "omnis stet imo vulnere sanguis" and all the blood stood still at the bottom of the wound.

Celsus mentions it only once, 5, 25, 14, to expel a dead child or the secundae, a potion is made of water with sal ammoniac or Cretan dictamnus. Dios, 3, 31, ecboic of dead child in potion, application or suffitus, the root useful against venomous bites and wounds by iron, &c.

Quincy, p. 74, and the New Dispensatory, p. 123, see little virtue in it.

Doronicu (m): Arnica montana or Doronicum Arnica—the plant furnishing the officinal Arnica. Les., p. 48, makes it a lung and heart strengthener in all cases of pain.

Dracunculus: Artemisia Dracunculus (Linn), Tarragon, now cultivated for the leaves which are used as a condiment. Dios. 2, 148, makes it very useful indeed. Takes away nasal polypus, checks carcinoma but abortifacient, killing the foetus—cures phagedenic ulcers—"qui radice suas manus perfricuerunt a viperis feriri negantur"—those who thoroughly rub their hands with the root cannot be stung by vipers—prevents putrefaction, good for eye sight, &c., &c.

Ebonum: Ebony, Diospyros Ebenus. Dios. 1, 111, clears eyes, and heals old pustules marvellously.

(To be continued)

## Radio Talk

Prepared for the Canadian Social Hygiene Council and delivered at  
CKCL Broadcasting Studio, Toronto, March 8th, 1927

### CHILD HYGIENE

By DR. J. T. PHAIR

*Director, Division of Child Hygiene, Department of Health of Ontario*

**C**HILD Hygiene is a term used in referring to the movement which has for its objective the study of the growth and development of infants and children, and the application of the knowledge so gained to the improvement of health conditions associated with infancy and childhood.

While this movement as such is essentially modern, it has made remarkable advances during the last two decades. In fact, so widespread has been the interest in this subject, and so general the adoption of the constructive programme which has been laid down by investigators, that the progress of any community or state can now be measured by its death rate among infants and young children.

In order that there may be a definite assurance of future good health an active interest in the subject must be shown several months before the birth of the child. The expectant mother should so realize the necessity for adequate pre-natal care that no stone will be left unturned to assure the birth of a normal, healthy infant.

By adequate pre-natal care is meant, the early selection of an attending physician, regular supervision by the physician chosen, careful regulation of all other than ordinary activities, the avoidance of worry and excitement, and a simple nutritious diet, with rest, fresh air and exercise in prescribed amounts.

Following the birth of an infant there are many health factors that must be given consideration, for example—feeding, hours of sleep, clothing, bathing, fresh air, sunlight, protection from infectious diseases, etc.

Fortunately, the most important one of these requires little or no serious thought, for the value of breast feeding has been so definitely established, that there is no reasonable excuse for the adoption of any other type of feeding, except in extremely rare cases. In fact the general



adoption of breast feeding will do more to assure the new-born infant a good start in life than all other factors combined.

In order, however, that the best results may be obtained, thoughtful attention must be given all of the health practises that have been enumerated, and it is in order that information regarding these may be easily obtainable by all parents, that the child hygiene movement exists.

The wide dissemination of this knowledge is made possible by the employment of qualified physicians, dentists, nurses and other health workers, whose task it is to interpret into simple terms, and make practicable for all members of the community, irrespective of their financial or social standing, all that pediatric research has revealed.

Child health centres, or well baby clinics, to which presumably well children are brought for regular examination, and at which helpful advice is given to the mother; mother's conferences, at which the various health problems are discussed; pre-natal clinics which, collaborating with the attending physician, assume the responsibility for the pre-natal care of expectant mothers; School Medical Inspection, a service which has for its objective the detection and correction of physical defects; the control of communicable disease, and the instruction in desirable health habits; all these, and other educational methods, must be employed by municipalities or health agencies, to spread as widely as possible the necessary information regarding the best methods of infant and child care.

Parents frequently ask how old a child should be before an effort is made to establish desirable health habits. The answer is that it is never too early to make it clear to the child that his hours of rest and sleep, the quantity and type of food, the length of time in the open air, are part of a daily programme; and such undesirable habits as thumb-sucking, sleeping on the face, etc., should be checked immediately they are noticed.

The establishment of satisfactory health habits requires more, however, than their early introduction. It necessitates a realization on the part of the parents of their value, and a continued insistence on their being practised right through the pre-school and school age period. Thus only will they become a fixed practice easily adhered to in adult life.

While the responsibility of the parent for the future health of his or her children is fully realized, the fact that the municipality has an equal responsibility is often overlooked. And, while it is the duty of the parent to supply suitable shelter and clothing, an adequate supply of good food care in illness, a proper moral and social environment, and to make it possible for each child to take full advantage of the educational opportunities that are offered by the State, it is distinctly up to the muni-

ciality to realize their responsibility if we are to continue to make progress towards the goal which has been set, namely, the right of every child to be well born, and to be reared according to the best principles of healthy living.

The municipality must provide an adequate supply of good water, a satisfactory method of sewage and garbage disposal; must supervise the food and milk supply; must establish school health supervision, a public health nursing service, efficient methods for communicable disease control, and interest themselves seriously in the questions of good housing, industrial and mental hygiene, and the provision of adequate treatment facilities for those who are unable to supply such treatment for themselves.

It has been possible, by a programme of legislation and education, to cut our infant death rate in the Province of Ontario from 145 deaths for every thousand living births in 1906 to 79 in 1925. It has been possible to likewise materially lessen the sickness rate among children by the same means. School Medical Inspection has done much to draw attention to the existence of many physical defects which, if uncorrected, would assuredly go on to permanent disabilities. Private health organizations have linked themselves up with governmental and municipal health agencies in this programme of education, much has been accomplished, much still remains to be done, and a realization of the value of this particular health activity by both the individual and the community, will go a long way towards its accomplishment.

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# The Sanitary Inspectors' Association of Canada

## THE QUALIFICATION FOR MEMBERSHIP

By THE PRESIDENT

**A**T the recent Convention held at Brantford it was suggested that the provisions of our Constitution regarding Associate Members are a hindrance to the progress of the Association and should be amended. The Sections dealing with membership are as follows:

*Section 5:*

"No person shall be eligible for Membership in the Association unless he or she shall possess a certificate of competency in some branch of sanitary science granted by some recognized National Examining Body. The matter of acceptance or not of any such certificate shall be decided by the Executive Council; *provided, that persons over 45 years of age and who have given five consecutive years' service shall be eligible for full membership.*"

*Section 6:*

"Persons desirous of becoming Associate Members shall be those who, whilst not possessing certificates as defined in the preceding section, are engaged in active work as full-time Public Health officials, holding appointments: or those studying sanitary science with a view to qualifying for appointments."

*Section 20:*

"Only full members shall vote at any meeting of the Association or shall be eligible to hold office. . . . . Associate members shall, however, be entitled to speak."

N.B.—This section has been held to apply only to the Annual Business Meeting of the Association, and that in the meetings of the various branches Associate members may hold office and vote.

One of the main objects—probably the principal object of the Association—is set forth in Section 3(b) as follows:

"To raise the status of the profession of a Public Health Official by endeavouring to secure that all persons appointed as Sanitary Inspectors, Meat, Food and Dairy Inspectors, Infectious Disease Inspectors, Veterinary Inspectors, Visiting Nurses or other

similar positions in Health Departments, shall be properly qualified for such positions by reason of having passed a qualifying examination in some branch of sanitary science, and to promote legislation with that object."

This is surely a very desirable object. The question is how best to do this. It is not sufficient to insert such objects in Charters or Constitutions; we must go further and endeavour gradually to make them a reality.

Nothing will serve this purpose so effectively as the providing of a standard of qualification for appointments and then insisting that all applicants for positions attain such standard.

It is very necessary to convince Health Officers and Provincial and Municipal Authorities who employ sanitary inspectors that properly trained and qualified inspectors are better than unqualified men.

The Association has not so far attempted to raise the status of inspectors by endeavouring to get salaries raised. We have avoided anything of a tendency towards Trade Unionism. We recognize the fact that *education* is the first and most important issue, and we believe that, when we can show that sanitary inspectors belonging to the Association are well trained and possess certificates of competency, it will not be difficult to obtain more adequate salaries. The Association has, however, on one occasion at least, taken action in the matter of the classification of Civil Service employees in a Province where the Sanitary Inspectors were not classified (as we believe they should be classed) as technical experts.

Our aim in the early years of the Association has been to get the men qualified in the hope and belief that in the near future we could then take up, with a better chance of success, the question of more adequate remuneration, by being able to convince employing authorities that technically trained men are worth more than those without such qualification.

Our records show that this policy has been satisfactory, as in the early years of the Association, we had a much larger proportion of Associate members than there is at the present time.

In England status is given the Sanitary Inspector by the various Public Health Acts, and by the Ministry of Health. Minimum salaries are recognized by law, but no person can there be appointed as a sanitary inspector unless certificated.

Eventually we shall get this in Canada, but not until a larger proportion of inspectors are qualified, nor until Health Officers and Municipal Authorities demand properly trained and certificated men. One of the aims of the Association is to secure legislation in all the Provinces with this object.

What, then, of the men already engaged in Public Health work in Canada who do not possess such certificates? At the time our Association was formed in 1913 it was realized that there were a large number of such men, some of whom had been in the service and doing good work for long periods. Also that many of these men, who had borne the heat and burden of the day, had attained an age when they would not feel like sitting for examination. In order to meet such cases, and not to keep such men out of the Association, the Constitution provided that inspectors over 45 years of age, and who had given 10 years' consecutive service, should be eligible for full membership. This was subsequently amended so as to read 45 years of age and 5 years' service.

It is now suggested that the Constitution be further amended by striking out all reference to Associate Members so as to permit of any inspectors, part-time or full-time, certificated or non-certificated, joining the Association on equal terms.

Is this in the best interests of the Association?

The Saskatchewan members succeeded in getting an amendment to the Public Health Act of that Province to the effect that no person shall in future be appointed to the position of sanitary inspector in that Province unless he shall possess a certificate in sanitary science satisfactory to "The Sanitary Inspectors' Association of Western Canada", which was then the title under which our Association was known.

The Winnipeg inspectors were instrumental in October, 1913 (only a few months after the Association was founded) in getting enacted a by-law of the City of Winnipeg providing that, "all persons who shall in future be appointed to the position of a Health or Sanitary Inspector, Meat, Food, Dairy Inspector, or Disinfector, in the Health Department, shall be persons specially qualified for sanitary work and shall possess a certificate granted by the Royal Sanitary Institute of Great Britain, or the Incorporated Sanitary Association of Scotland, or The Royal Institute of Public Health, England, or Victoria University, Manchester, England (sanitary science certificate), or *some other recognized examining body skilled in sanitary science.*"

Since that date none but qualified inspectors have been appointed in Winnipeg.

The Association has been rather lax in not obtaining, before now, similar legislation in other Provinces and Cities.

Section 5 of our own Constitution is not so specific in its requirements as the by-law just quoted. It provides that candidates for full membership "shall possess a certificate of competency *in some branch* of sanitary science granted by some recognized National Examining Body". This permits of our accepting as members, Veterinarians, Public Health Nurses, and Dairy Inspectors with a National Dairying

diploma. The Executive Committee decides as to the acceptance or not of any certificate. This section might, if desired, be amended so as to specify more clearly what certificates shall be accepted.

The question at issue is: Do we wish to admit as full members and give a full vote to unqualified persons who in many cases will not take the necessary trouble to qualify?

Is the Examination of the Royal Sanitary Institute, for instance, so difficult as to prevent any man who really makes up his mind to do so obtaining this certificate? We know that it is not.

In Manitoba, Saskatchewan, Alberta and British Columbia, the Institute has Examining Boards. Ontario could, no doubt, obtain the appointment of a Board without difficulty.

Private study is open to all. The necessary text-books and syllabus can easily be obtained. In towns or cities classes may be formed and a tutor obtained. This has been done successfully by many of our Associate members anxious to qualify as members.

Extra short-time courses under the auspices of our Universities are all right for men who already possess a certificate. Such men might derive great benefit from short-time courses in the higher branches. But men studying for certificates must begin with the rudiments: including arithmetic, mensuration, elementary chemistry and physics. On these are built the methods of inspection of dwellings, lodging houses, dairies, milk shops, slaughter houses, cow sheds, bakeshops, workshops, and nuisances connected with offensive trades; disinfectants and methods of disinfection, the composition of pure air and causes of deterioration; the principles and methods of ventilation, calculation of areas, cubic spaces, etc., and the interpretation and drawing of plans to scale. Also plumbing and drainage, the control of communicable diseases, and sanitary law.

This syllabus, no doubt, seems somewhat difficult to a beginner, but will be found quite easy to understand if the proper text-books or tutor are available.

Which is better: a smaller body consisting principally of qualified inspectors, men who, having obtained a certificate, have now a foundation on which to build, and who, by the very effort necessary to obtain such certificate, have given evidence that they have ability to go further and will continue to study and improve themselves; or a larger membership consisting principally of unqualified men including part-time inspectors who may be in public health work to-day and gone to-morrow?

Is there any real reason why full-time sanitary inspectors under the age of 45, or over it for that matter, should not take the trouble to qualify and thus become full members? Why should the present standard, which is quite low enough, be further lowered?



In other countries the tendency is to stiffen up the examinations and to require a higher standard of general education for candidates.

The regulations of the new Joint Examination Board of the Royal Sanitary Institute and the Sanitary Inspectors' Association prove this as regards England, and the Australian Sanitary Association is also raising its standard materially.

Of course the Constitution cannot be amended except at an Annual Convention and after proper notice has been given. It is open to any member to give such notice.

It may appear to some a hardship that Associate members cannot vote at the Annual Business meeting, although we have never heard any such complaint from an Associate.

It should be pointed out that in all Branch and Local meetings this disability does not apply and Associates have an equal voice in branch work. It is only in Annual Conventions, when important questions such as the amending of the Constitution are involved, that they have no vote. They are, however, entitled to be heard.

The object of this rule is to preserve the Constitution, and to maintain intact and unaltered the principles on which the Association was founded.

Those who drafted the Constitution designedly framed it with the object that the vote of the unqualified inspectors might not nullify the vote of the qualified members.

Our Constitution follows the lines of the Sanitary Inspectors' Association of Great Britain, which has both Members and Associates, and the Associates have no vote in many questions dealing with the administration.

If this question, therefore, is brought before any future Convention it should be considered very carefully before any changes are made.

Your Executive Council hope that, for the reasons given above, no such change will be proposed. We thought it well, however, to let the members know that the matter has been under consideration and our opinion thereon.

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## Monthly Jottings of the Sanitary Inspectors' Association of Canada

The Executive Council recently prepared some suggested amendments to the Public Health Act of Manitoba and have asked the Provincial Government to introduce a Bill at the present session of the legislature to amend the Act. The amendments proposed are briefly:

1. The term "Sanitary Constable" has been used in the Act to describe Sanitary Inspectors. Of course, the Act is old, but we consider the term derogatory and ask that the wording be changed.
2. That every person who shall in future be appointed as a Sanitary Inspector in Manitoba, either by the Provincial Board of Health, or by any Municipality, shall be a person specially qualified for such position, and shall possess a certificate of competency as a Sanitary Inspector which is recognized by the Sanitary Inspectors' Association of Canada.
3. That the Province be divided into Health Districts and that within each defined area the Provincial Board of Health may, with the approval of the Minister of Health, appoint a full-time properly qualified Medical Officer and also a properly qualified Sanitary Inspector. The salaries of such officials to be fixed by the Board, and each Municipality in the District to bear a portion of the cost.

We believe that if such legislation came into effect much better health administration would result in the rural districts of the Province.

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A recent inquiry from Montreal indicates that we may yet have a few members there. There is no reason why we should not have quite a large membership even in the Eastern Provinces.

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We are also expecting a large increase in the membership in Ontario,

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Mr. Millar, our Branch President for Ontario, Mr. White, Chief Provincial Sanitary Inspector, and Mr. Cusack, Chief Sanitary Inspector for Toronto, are all on the job and hope to make the forthcoming Convention in Toronto a memorable one.

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The Executive Council meets once a month and will be glad to hear from any member at any time on any matter that will be for the good and welfare of our Association, or upon any matter that they can be of assistance personally.

## Canadian Social Hygiene Council

Perhaps the best way to sum up the results of the recent meeting of the Honorary Advisory Board of the Canadian Social Hygiene Council, which was held in the House of Commons in the middle of March, is to repeat verbatim, the most important resolutions passed there.

The bulk of the opinions expressed are contained in a resolution put forward by Sir George Foster and passed unanimously.

"Whereas, in spite of the magnificent results achieved by health authorities in cutting down mortality rates," it states, "preventable illness and death are still a very costly item in national expenditure:

"Whereas, preventable disease fills hospital and institutional beds unnecessarily and is a factor in the creation of various social problems also of a costly nature:

"Therefore, be it resolved that this conference place itself on record as endorsing the expenditure of voluntary and public funds for the purpose of further public education."

The attitude of the conference towards the combined effort of the Federal and Provincial governments against venereal disease was also very plainly stated in a second resolution, moved by Col. A. E. Gooderham of Toronto and also passed unanimously.

"In view of the fact that, since the inauguration of the campaign against venereal disease, by the Dominion and Provincial Governments, approximately 150,000 persons have been reported as having been brought under treatment and that:

"Whereas, this successful campaign is the first of its kind involving co-operation between the Dominion and the Provinces in a Dominion-wide effort to control disease and conserve health:

"Be it resolved that this conference congratulate the Dominion and Provincial Governments on the success of this work and urge its continuance with unabated vigor."

Mr. A. O. Dawson of Montreal, Chairman of the Finance Committee, moved the following resolution:

"THAT the report of the Finance Committee be received and approved and that the details of allotment to individual cities be delegated to the Finance Committee."

Aside from the resolutions, there were two other very noteworthy features of the gathering. His Excellency, the Governor-General, who was the first speaker, said that he had found, from his own experience,

that the work of voluntary health associations was of great value to governments. Good health, he declared, is the first essential of a virile nation.

A few days previously, at the annual meeting of the Ottawa Social Hygiene Council, His Excellency had also stated very clearly his reasons for endorsing the work of the Canadian Social Hygiene Council and his own personal view that nothing could be more important than the work of building up a strong and healthy race.

With the Governor-General at the Advisory Board conference, was Hon. Dr. J. H. King, Federal Minister of Health, with whose sanction the meeting had been called.

His pronouncement, at the conference, of the Dominion Government's attitude toward the activities of voluntary health organizations generally, and the Canadian Social Hygiene Council, in particular, is of very great general interest.

"The department of health for the Dominion," he said, "is under the Federal Government, and, as you all understand, there are limitations that exist in regard to our activities.

"Health is primarily a matter that should be looked after by our provincial authorities, they, in turn, delegating their powers to the municipality. As a department within the Dominion, knowing these limitations, it seems our people should try and co-operate and bring these various provincial and municipal organizations into harmony in order that we may have uniformity in regard to health laws and regulations.

Speaking specifically of the work of the Canadian Social Hygiene Council, he felt that it had achieved a marked degree of success, especially in dealing with venereal disease. The field had been developed to the great advantage of the average citizen. He agreed that the time seemed ripe to expand and enter new fields, expressing his sympathy with the basic principles of the new movement and his support of the efforts to secure voluntary subscriptions to carry it out.

"I am satisfied," he declared, "if you proceed in the manner that has been the practice heretofore,—that is, by the co-operation of the various health bodies—that your campaign will reach the public and the public be prepared to receive it.

"As far as the Government is concerned," he concluded, "if we should attempt to proceed along these lines, even though we know they would be productive of good,—or if any government undertook to do that work in advance of public opinion—we would run into great difficulty, and as I see it, the most important thing for your association is to educate the people so that the remedies may be applied when they see the need of them and the advisability of them."



## The Provincial Department of Health of Ontario

Communicable Diseases Reported for the Province for the Weeks  
Ending January 1st, 8th, 15th, 22nd and 29th, 1927.

COMPARATIVE TABLE

Diseases	1927		1926	
	Cases	Deaths	Cases	Deaths
Cerebro Spinal Meningitis.....	8	7	6	2
Chancroid.....	9	—	—	—
Chicken Pox.....	1273	—	1010	—
Diphtheria.....	419	34	288	16
Encephalitis.....	2	—	2	—
Gonorrhoea.....	172	—	135	—
Influenza.....	—	30	—	46
German Measles.....	149	—	63	—
Measles.....	2406	1	1305	3
Mumps.....	255	—	566	—
Pneumonia.....	—	239	—	281
Poliomyelitis.....	—	—	2	1
Scarlet Fever.....	885	4	811	7
Septic Sore Throat.....	—	—	8	—
Small Pox.....	167	1	78	—
Syphilis.....	125	—	114	—
Tuberculosis.....	178	76	138	82
Typhoid.....	59	3	51	4
Whooping Cough.....	553	4	240	3

The following Municipalities reported cases of Small Pox:

Ottawa 5, Fitzroy Tp. 5, Kingston 1, Olden Tp. 9, Loughboro 19, Belleville 17, Elzevier Tp. 2, Madoc Tp. 4, Sidney Tp. 9, Sterling Village 1, Bancroft 1, Pakenham Tp. 12, Carleton Place 2, Hastings Village 2, Clarke Tp. 1, Pickering Tp. 2, McKellar 1, Peterboro 24, Toronto 35 cases 1 death, Timmins 4, Widdifield 2, Unorganized Dist. 1, New Liskeard 4, London 1, Clarence Tp. 3.

JOHN W. S. McCULLOUGH.

Communicable Diseases Reported for the Province for the Weeks  
Ending February 5th, 12th, 19th and 26th, 1927

## COMPARATIVE TABLE

Diseases	1927		1926	
	Cases	Deaths	Cases	Deaths
Cerebro Spinal Meningitis.....	5	4	3	2
Chicken Pox.....	641	—	785	—
Diphtheria.....	341	18	201	18
Encephalitis.....	1	1	2	1
Gonorrhoea.....	110	—	190	—
Influenza.....	74	15	—	31
German Measles.....	607	—	511	—
Measles.....	1899	—	1988	2
Mumps.....	198	—	588	—
Pneumonia.....	—	195	—	227
Scarlet Fever.....	745	8	820	4
Septic Sore Throat.....	—	—	2	—
Small Pox.....	104	—	87	—
Syphilis.....	114	—	162	—
Tuberculosis.....	135	49	163	79
Typhoid.....	49	1	26	—
Whooping Cough.....	369	—	420	2

Municipalities reporting cases of Small Pox:

Oshawa 1, Clark Tp. 2, Manvers 7, Pakenham 2, Kingston 2, Peterboro 9, Asphodel 3, Dummer 2, N. Monaghan 4, Smith 4, Owen Sound 1, Belleville 9, Marmora and L. 7, Bangor, etc., 5, Montegale and H. 1, Widdifield 1, Port Credit 2, Toronto 22, Weston 2, Ottawa 4, Huntley 4, Oakville 1, Sommerville 1, Streetsville 2, Culross 1, Whitney 4.

JOHN W. S. McCULLOUGH.

## News Notes

That in the past year in the thirty-seven Red Cross Outpost Hospitals, scattered through Northern Ontario, New Brunswick, Manitoba, Saskatchewan and Alberta, and operating in 1926, 6,820 people were cared for by the Red Cross Nurses; that there were 1,010 operations, of which 234 were major operations; that 515 children were born in the Outposts; that 178 schools were visited by the Outpost nurses where 4,341 children were examined; and that 3,300 homes were visited to give nursing care or to offer advice—are facts put forward in a statement recently issued from Red Cross Headquarters in Toronto. One of the most interesting features of this report is that it is shown that 743 mothers, who must otherwise have gone without expert care when their babies were born, were cared for in the Outposts or by the nurses in homes, and that the death rate among both mothers and their infants was at a minimum. Since these figures were sent in, two more Outposts have come into existence in outlying sections of Northern Ontario, and the Red Cross is making every effort to expand this useful service in pioneering districts to meet the ever increasing needs of remote settlers, in all parts of the Dominion.

An additional Report from the Canadian Red Cross shows, since the year 1924, 808 classes in Home Nursing have been organized in all Provinces, at which 10,000 women and girls have taken instruction and that 2,300 are now taking Home Nursing in the 305 new classes organized in the year 1926.

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The sixth Canadian Conference on Child Welfare will be held in Vancouver on May 23rd to 27th, 1927. The Canadian Association of Child Protection Officers will meet at the same time and in the same place.

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The question of disinfecting school books has arisen in some of the schools in Nova Scotia and the following procedure as recommended by Roseneau and Parks is published for guidance. Books may be disinfected by placing a drop of formaldehyd 40% on every second or third leaf of the book and then placing the book in a warm enclosed space at 80° F. for six hours.

Travelling library books can be disinfected by being placed in a tight box or chamber with a few ounces of formaldehyd soaked in a sponge in the box and the same kept at a temperature of 80° F. for six hours. The box should be fitted with wire shelving and the books stood in such a way as to have the leaves separated as much as possible.

The Annual Meeting of the Canadian Public Health Association will be held in Toronto during the week of June 13th. The Association this year accepted the invitation of the Canadian Medical Association to meet jointly with them, and the responsibility for the sessions of the Section of Preventive Medicine has been assumed by the Canadian Public Health Association.

The Section of Public Health Nurses will meet on Tuesday and Wednesday, during the week, while the Laboratory Workers' Section are meeting jointly with the Section of Pathology and Bacteriology of the Canadian Medical Association.

The programme, which is already arranged, is an extremely attractive one and merits the attendance of all public health workers.

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## Book Review

*An Introduction to the Practice of Preventive Medicine*, by J. G. Fitzgerald, M.D., LL.D., F.R.S.C., Professor of Hygiene and Preventive Medicine and Director, School of Hygiene and Connaught Laboratories, University of Toronto, assisted by Peter Gillespie, M.Sc., C.E., M.E.I.C., and H. M. Lancaster, B.A.Sc., with chapters by Andrew Hunter, M.A., M.B., F.R.S.C., A. H. W. Caulfeild, M.B., J. G. Cunningham, B.A., M.B., D.P.H., R. M. Hutton, B.A. (Oxon.). The C. V. Mosby Company, St. Louis, Mo., publishers. Second edition. Cloth bound. 774 pages with Index. Illustrated. Price \$7.50.

A second edition of this book has been rendered necessary by what the author describes in his preface as "the important advances in knowledge of certain of the communicable diseases, notably scarlet fever, and also by a desire to have the subject-matter in certain other chapters reflect the most recent developments in the topics therein considered."

To accomplish this the book has been revised and much new material incorporated. The book is primarily designed for the medical practitioner for medical students and public health nurses.

The author, in the opening chapter, states his belief in the fact that "the state should provide a service for those to whom the cost of complete health supervision is prohibitive and such a service should be free to all, rich and poor alike, and no stigma of charity should be attached to its acceptance." This he likens to the provision of free educational facilities, with the privilege of private schools.

Following statements as to the extent of preventable sickness and deaths, each of the communicable diseases is dealt with under the headings of incidence, etiology, modes of transmission and methods of control.

This section of the book is worthy of the highest praise. The material is clearly, concisely and systematically presented. The reference at the end of each chapter makes each one a complete presentation, with references, of each of the communicable diseases. The value of these chapters alone makes the book a desirable acquisition for every practitioner and student.

Chapter XII—"General Methods for The Control of Communicable Diseases"—deals with disinfection amongst other things. As extracts from the memoranda on cleansing, disinfection, etc., of the Department of Health, Ontario, are quoted without comment, it is presumed they are approved by the author. It is therefore rather surprising to read "but it is a wise precaution to carry out disinfection, not necessarily

fumigation, after every case of a communicable disease"; "The greater the care exercised during the progress of the disease, the less there will be accomplished by terminal disinfection"; "Fumigation and terminal disinfection are precautions against the transmission of communicable disease, necessary only in cases where cleanliness and disinfection have been neglected during the progress of the disease".

This seems to be a contradiction and as it is a matter of practical importance it would seem preferable to have a clear statement on the subject rather than the confused impression created by such quotations as are here given.

In regard to disinfection of mucous membranes, it is stated that "the period of contact between them is at best too short for the development of even their inhibition". Yet a gargle is recommended for use at the termination of quarantine after scarlet fever, small pox and chicken pox; one wonders what for.

The chapters devoted to water and milk, in our opinion, give too much space to details which are of value only to those actively engaged in public health work, which is not the object of this book. The same is true of the section on Domestic and Community Sanitation. This is not a criticism of these sections, but merely an expression of an opinion that they are not suitable for this book. These chapters might be confined to a statement of principles.

The chapters which deal with maternal, infant, school and industrial hygiene are of uniform excellence, as are also the chapters on public health organization and its related subjects. These chapters are full of Canadian references, and they outline Canadian organization. They do not, of course, confine themselves to Canadian references, but include sufficient of other countries so as to compare the Canadian situation with what exists elsewhere. We would like to see a little more attention given to the subject of town planning and housing.

The chapters on Food are excellent, but one feels they are rather too negative. The positive value of proper diet might well be summarized alongside of the results of a faulty diet.

The problem in preparing such a book is to supply sufficient information without allowing the text to become too voluminous for the general practitioner and student. It would doubtless be easier to judge what to include in a text-book for public health workers than in a text-book on Preventive Medicine for medical practitioners and students. The author has perhaps come as near reaching the desired goal as is practically possible.

Without qualification, this book should be read by Canadian practitioners. It is clearly printed and well-indexed. It is a pleasure to be able to endorse, so heartily and completely, the work of this outstanding Canadian Public Health authority.

## Editorial

### THE HONOURABLE DR. KING

The Honourable Dr. J. H. King, a photograph of whom appears in the current issue of the Public Health Journal, is Minister of Health for the Dominion of Canada.

Dr. King was born in Chipman, New Brunswick. He was educated at St. Martin's Academy and at McGill University. He practised at Andover and at St. John, N.B., from 1895-1898, going from here to British Columbia, where he carried on practice in Cranbrook. His first step in politics was taken when he represented Cranbrook in the British Columbia Legislature from 1903 to 1908. In 1916 he became Minister of Public Works in the British Columbia government, and in 1922 he accepted the portfolio of Public Works at Ottawa. He became Minister of Health on the accession to power of the present government in 1926. He was one of the founders and governors of the American College of Surgeons and has been Vice-President of the Graduate Society of McGill.

The Public Health Journal takes pleasure in extending congratulations to the Honourable Dr. King on his accession to his present high office. The Portfolio of Health in the Dominion Cabinet is an extremely important one. The matter of organizing the Dominion for health is a responsibility the significance of which has been scarcely as yet realized. Dr. King as Minister of Health is the recognized leader of the health forces of the Dominion, and there is no doubt that under his leadership important advances will be made, both in the direction of co-ordinating existing forces and planning new attacks on the forces of disease and death. Dr. King has behind him a fine record of proven ability. He has already given evidence of a real interest in the health problems of the Dominion. His qualities of personality and leadership are acknowledged. The Public Health Journal believes that Dr. King's tenure of office will be marked by another fine record in a field than which there is no greater.

### TYPHOID IN MONTREAL

As the Journal goes to press, news comes from Montreal that the typhoid fever epidemic has assumed serious proportions. Over a thousand cases have been reported and hospital accommodation is taxed to capacity. The epidemic is apparently milk borne, and one result has been the

placing of an embargo on Canadian milk by American authorities. The situation is characterized by all the usual results economic and otherwise which are typical of a serious epidemic.

Comment on the situation among health authorities is superfluous. It has been said by someone of scientific attainments that for every death from typhoid fever someone should be hanged. Certainly the only reaction on the part of anyone versed in the methods by which typhoid may be spread and the readily available means of prevention is amazement that such a situation could possibly develop in a modern civilized city. And it is only a little while since high authority in Montreal, in the face of disclosures as to the existence of a notorious vice district spreading venereal disease, was complacently assuring us that things were not as bad as they seemed.

The solution of matters of this kind is in the long run public opinion. If the health activities of the city are to be properly financed, and if proper machinery is to be provided for the preservation of health, public opinion must be called to the rescue. Recalcitrant politicians and lack of popular support can render efficient health officials powerless. An informed public, however, will finally settle the matter. There is evidently still room for considerable popular health education in Montreal.

#### CONFERENCE ON MEDICAL SERVICES

On the last three days of March the second All Canadian Conference on Medical Services was held in Ottawa. The first of these conferences was productive of much good, and doubtless the record of proceedings of the second conference, which will be available for the next issue of the Journal, will contain much food for thought. The Conference includes representatives of the Dominion and provincial health authorities, the organized medical profession, the licensing bodies, the teaching bodies and the voluntary health agencies.

#### MONTREAL HEALTH LEAGUE

The current and subsequent issues of the Public Health Journal will contain the Annual Reports of the activities of the Montreal Anti-Tuberculosis and General Health League. These reports constitute the official record of much valuable and necessary work undertaken in the City of Montreal by this organization, and their perusal should be of interest to our readers. The situation in Montreal is such that it provides a real opportunity for a voluntary health organization, and the Montreal Anti-Tuberculosis and General Health League is taking full advantage of it.

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